

WHAT IS CLAIMED IS:

1. An apparatus for collecting a sample, comprising:
 - (a) means for holding a sample media used to take said sample,
 - (b) means for identifying spatial coordinates of said sample, and
 - (c) means for electronically capturing, processing, and integrating sampling-related data with said spatial coordinates.
2. The apparatus of claim 1 where said means for holding a sample media comprises:
 - (a) an apparatus frame sized to be held in at least one hand,
 - (b) a sample media adapter that mechanically holds said sample media, and
 - (c) a trigger mechanism connected to said media adapter and adjacent said frame to operate said sample media adapter.
3. The apparatus of claim 1 where said means for holding a sample media comprises a suction cup connected to a vacuum pump.
4. The apparatus of claim 1 where said means for identifying spatial coordinates of said sample comprises a GPS unit.
5. The apparatus of claim 1 where said means for identifying spatial coordinates of said sample comprises a position tracking system.
6. The apparatus of claim 1 where said means for capturing, processing, and integrating said sampling related data comprises a personal digital assistant (PDA).
7. The apparatus of claim 1 where said means for capturing, processing, and integrating said sampling related data comprises a wearable computer.

8. An apparatus for taking a sample, comprising:
 - (a) an apparatus frame designed to be held in at least one hand,
 - (b) a sample media adapter connected to said apparatus frame and configured to hold a sample media with a securing means, and
 - (c) a trigger mechanism connected to said sample media adapter and adjacent said frame to operate said securing means.
9. The apparatus of claim 8, further comprising a computer configured to display, receive, process, and store sampled data.
10. The apparatus of claim 9, where said computer comprises a personal digital assistant (PDA).
11. The apparatus of claim 9, where said computer comprises a wearable computer.
12. The apparatus of claim 8, further comprising a camera.
13. The apparatus of claim 12 where said camera comprises a video camera for capturing video images.
14. The apparatus of claim 9, further comprising a microphone connected to said computer.
15. The apparatus of claim 9, further comprising a means for identifying spatial coordinates of said sample.
16. The apparatus of claim 15 where said means for identifying spatial coordinates comprises a GPS receiver.
17. The apparatus of claim 15 where said means for identifying spatial coordinates comprises a position tracking system.
18. The apparatus of claim 9 where said computer display is attached to a headset.
19. The apparatus of claim 14 where said microphone is attached to a headset.

20. A method for taking a sample with a handheld sample collector, comprising:
 - (a) determining a location of said sample,
 - (b) allocating an individual ID for said sample,
 - (c) loading a sample media into a sample media adapter,
 - (d) determining spatial coordinates of said sample location,
 - (e) using said handheld sample collector to collect said sample with said sample media, and
 - (f) merging said individual ID with said spatial coordinates within a computer program creating a comprehensive data set.
- 10 21. The method of claim 20 further comprising scanning images of said individual ID, said sample location, and said sample with a video camera and merging said images with said comprehensive data set within said computer program.
22. The method of claim 20 further comprising downloading said comprehensive data set into data processing systems.
23. The method of claim 20 where said spatial coordinates are directly determined from a GPS signal.
24. The method of claim 20 where said spatial coordinates are determined relative to a fixed reference.